occasional peculiarities of style: these can be attributed to the fact that the author's mother tongue is not English, and they in no way detract from the book. There are also a few minor misprints. It is to be hoped that the book will be widely read and that it will play a significant part in expediting action along the lines for which Professor Chandrasekhar makes such eloquent pleas and which would be some recompense to the author for the considerable labour that has gone into the book.

C. J. THOMAS

Francis, Roy R. (Editor). The Population Ahead. Minneapolis, 1958. Minnesota University Press. London, Oxford University Press. Pp. x + 160. Price \$30.

THIS VOLUME IS the verbal offspring of the Second Symposium on Population Problems at the University of Minnesota, which was held in 1957, nine years after the first. There are chapters by nine contributors, and there are comments from six further participants in the conference.

There is much of value and much of interest, in this volume; and much too that is not new. There are notable sentences, both revealing of conditions in the United States and stimulating of further thought.

Karl Sax has written one of the best sections, on "The Genetic Future of Mankind". He is constrained to point out (p. 91) "Even in this country no government employee and few deans of medical colleges would dare, at least publicly, to advocate birth control as a part of a public health programme. Few social workers would risk their jobs by suggesting that some of the 'underprivileged' are suffering from bad heredity". Sax quotes Muller with approval (p. 95) to the effect that "The saving of a life does not automatically justify its production of offspring, for the chief criterion on which to base decisions in the planning of parenthood would be the welfare of the descendants themselves". Sax goes on "But a program of 'negative eugenics' could do much to alleviate the unnecessary burden resulting from irresponsible reproduction by those who are already a burden to society and to themselves". And (p. 97) he concludes "It is not enough that man be freed from starvation and disease; he must also be freed from ancient creeds and dogmas which are so prevalent in the world to-day".

Frederick Osborn has pertinent things to say about "The Population Ahead". He speaks of a population of optimal size and observes that it is a difficult concept for scientist, politician and ordinary people alike. He therefore discusses what he regards as a more practical alternative concept, that of the "optimum rate of growth". But surely the difficulty of understanding an "optimal" population resides in the usual neglect to point out that the optimum will differ according to the criteria held to be of importance, whether economic, dietary, military or in the realms of "the good life". Some urgent thought is needed on the, admittedly much oversimplified, question of "What are people for?".

Yet it must sadly be confessed that whatever the high intrinsic merit of this symposium volume, its editor is not truly being fair to the reader. It is stated (p. vii) "The specialists who were assembled for the symposium were urged to forswear the technical jargon of their disciplines and to use the colloquial speech of the rest of us". It is thus clear that the well-being of the listeners was a consideration of worth. The printed words are seemingly but little different from the words which emerged from the speakers' mouths, and they have, again sadly, the defects of their origin. Here are too many words, too swirling an array of sentences, for the reader's easy comprehension: soon his zeal is overwhelmed. The tactics of holding a reader's attention are different from those of maintaining the concentration of a listener. The objective of printing a symposium such as this is surely to tempt and to hold the reader. Turgidity must be refined by editorial art, or the reader seeks elsewhere. And that is a pity for this volume in fact contains much of value.

G. C. L. B.

RADIATION

Blatz, Hanson (Editor-in-Chief). Radiation Hygiene Handbook. New York, 1959. McGraw-Hill. Pp. xix. 23 sections and index. Price £10 13s. 0d.

A HANDBOOK IS, according to one dictionary, "a small book or treatise such as may easily be